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AN INTELLIGENCE PROCESS FOR THE OPERATIONAL COMMANDER

By

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This paper examines a process that has been in use by the U.S. Army at the tactical level of war for 15 years. It is a process that systematically analyzes the weather, terrain and the enemy in order to effectively predict an enemy's likely course of action. The products of this process are used by the tactical commander to identify the best possible friendly course of action in order to achieve the assigned tactical objectives. The process is known as Intelligence Preparation of the Battlefield (IPB). This paper will address why use intelligence processes, briefly describe the IPB methodology, how it is applied at the tactical level of war, and how it can and should be applied at today's operational level of war.

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ABSTRACT

This paper examines a process that has been in use by the U.S. Army at the tactical level of war for over 15 years. It is a process that systematically analyzes the weather, terrain and the enemy in order to effectively predict an enemy's likely course of action. The products of this process are used by the tactical commander to identify the best possible friendly course of action in order to achieve the assigned tactical objectives. The process is known as Intelligence Preparation of the Battlefield (IPB). This paper will address why we use intelligence processes, briefly describe the IPB methodology, how it is applied at the tactical level of war, and how it can and should be applied at today's operational level of war.

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AN INTELLIGENCE PROCESS FOR THE OPERATIONAL COMMANDER

"Know the enemy, know yourself, your victory will never be endangered."1

"One of the surest ways of forming good combinations in war would be to order movements only after obtaining perfect information of the enemy's proceedings. In fact, how can any man say what he should do himself, if he is ignorant what his adversary is about." 2

"Intelligence is a key element of combined arms operations. It enables commanders to use their combat power effectively to win the decisive battles, and it helps them identify and attack high payoff targets (HPT's). Intelligence is an important part of every combat decision." 3

"Intelligence — quite simply.... information about the enemy. Not just any old information, any scrap of gossip, or rumor, but relevant information which has been processed and made accurate as it can be... Intelligence... is always trying to reduce the margin of ignorance, the element of risk, in planning of any military operation."4

I. Introduction:

Understanding the definition or nature of intelligence in military operations and why it is so important is not a concept that is difficult for one to comprehend. It has been, and always will be, the mechanism that facilitates the interaction of war. All forces being equal, the side able to acquire and *make best use* of intelligence, is the side that will ultimately achieve its objective in war. The ability to *make best use* of intelligence has coined the phrase "to get inside the enemy commanders decision cycle". The value of intelligence can be measured by how much it leads to decisions that result in the achievement of an objective, and how successful that achievement is (i.e. number of casualties, equipment, ability to sustain operations if necessary, etc.). The ability to provide intelligence that can be *best used* to achieve success, is the ability to

reduce the commander's uncertainty of the battlefield. That is — to accurately forecast an enemy's actions with *time* enough to facilitate successful counter-action. *Time* becomes the critical factor in one's ability "to get inside the enemy commander's decision cycle".

"From Plato to NATO, the history of command in war consists essentially of an endless quest for certainty. Certainty about the state and intentions of the enemy's forces; certainty about the manifold factors that constitute the environment in which the war is to be fought."5

"To estimate the enemy situation and to calculate distances and the degree of difficulty of terrain so as to control victory are virtues of the superior general. He who fights with full knowledge of these factors is certain to win; he who does not, will surely be defeated."6

Van Crevald and Sun Tzu clearly understood that reducing uncertainty about the enemy and the environment in which he fights, to be the essence of intelligence analysis. Recognizing that *time* is the critical factor to making *best use* of intelligence, it becomes necessary to develop a methodology of acquiring and processing information quicker and better than the enemy — "to get inside the enemy commander's decision cycle".

At the tactical level of war, the U.S. Army has developed, refined and practiced for over a decade, a method or process of analyzing the effects of the weather and terrain (environment), and how the enemy could be expected to operate within its constraints, in order to predict likely or probable enemy courses of action. As a result, the tactical commander is able to "see" the battlefield and identify the friendly course of action that is the most suitable, feasible, and acceptable to achieve the assigned tactical objectives. It is a process that is designed to enable the commander "to get inside the enemy commander's decision cycle", by anticipating enemy decisions before he can effectively execute them. It is a "non-stop" process. It is the process that drives the entire intelligence cycle for the purpose of synchronizing the tactical battlefield as

well as providing flexibility to respond to changing and unexpected developments on the battlefield. This process is called Intelligence Preparation of the Battlefield (IPB). IPB can and should be applied at the operational level of war. It should be the process that drives the intelligence cycle at the operational level. IPB should be the means of synchronizing the operational battlefield. The primary purpose of this paper is to define how IPB can be applied to the operational level of war.

II. Operational versus Tactical Level of War:

Although much has been written on the subject of all three levels of war, we need to briefly define the differences between each level in order to establish a common understanding that can be used as a premise in applying IPB (as a tactical process) to the operational level. According to JCS Pub 1-02, the tactical level of war is the "level of war in which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangements and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives". The strategic level is defined as the "level of war which a nation or a group of nations determines national or alliance security objectives and uses national resources to accomplish these objectives. Activities at this level establish national and alliance military objectives; sequence initiatives; define limits and assesses instruments of power; develop global or theater war plans to achieve these objectives; and provide armed forces and other capabilities in accordance with the strategic plan". The operational level is defined as "the level of war that occupies an intermediate position between strategic and tactical levels of war. It is concerned with the practical aspects of preparing, planning, conducting and sustaining operations and a single campaign to accomplish operational or strategic objectives within a theater

of operations".1 The commander of a theater of operations is responsible for translating strategic aims into single or several operational aims. The operational level of war enables the tactical commander to plan and execute tactical actions that will ultimately achieve or assist in achieving national objectives. Under these definitions, we find the distinct difference of preparing, planning, conducting and sustaining campaigns and operations to achieve operational or strategic objectives at the operational level versus the planning and conduct of engagements and battles to achieve tactical objectives found at the tactical level of war. Specifically, the differences are normally found in terms of time, space, and objectives. I will further address these differences as well as similarities or constants when describing how to apply IPB to the operational level.

III. Intelligence Preparation of the Battlefield (IPB) at the Tactical Level of War:

As stated earlier, IPB is a systematic approach to analyzing the weather, terrain, and the enemy in order to effectively predict likely enemy courses of action. Specifically, IPB provides a detailed analysis of the battlefield environment (weather & terrain) integrating all applicable and reliable information regarding the enemy in order to determine how one could expect to see the enemy fight with the constraints and nature of the battlefield environment. Thus far, this is a logical and historically valid sequence of predicting enemy courses of action. However, the products of IPB are what make its use to the commander unique to intelligence methodologies. IPB makes maximum use of graphics or "pictures" of the battlefield. IPB enables the intelligence analyst to get away from time consuming wordy estimates of enemy activity, and enables the analyst to provide the commander a "picture" of the enemy's course of action. ("a picture tells a thousand words") It enables the analyst, and in turn, the commander, to "see" the battlefield rather than

"read" the battlefield. This visualization of the battlefield better facilitates the identification of the *knowns*, and more importantly, the *unknowns* on the battlefield, critical to anticipating the enemy commander's decisions. The recognition of these specific *unknowns* or *gaps* on the battlefield form the basis of *driving* the on-going and continuous Intelligence Cycle of directing, collecting, processing, disseminating and using of information about the enemy and the environment. IPB enables the commander to focus limited intelligence collection resources on those "gaps" on the battlefield that are deemed most critical. In essence, it allows the commander to effectively prioritize intelligence collection efforts. Known at the tactical level as Priority Intelligence Requirements (PIR's). IPB also serves as the basis for synchronizing the tactical commander's Battlefield Operating Systems (BOS), bringing all available combat forces to bear at the right time and place on the battlefield to effectively defeat the enemy and achieve the assigned tactical objectives. IPB has evolved into a four step process. They are; define the battlefield environment, describe the battlefield environment, describe the enemy, and determine the enemy course of action. The primary products of the IPB process are in the forms of templates and associated matrices — Doctrinal, Situation and Event.

Define the Battlefield Environment - Step I
(formerly Battlefield Area Evaluation)

At the tactical level, this step is the process of identifying the commander's specific area of operations (AO) and area of interest (AI). These are geographic areas normally associated with the capabilities of the organization against parameters in time, boundaries in space, and the specific activity to be accomplished. The AO is normally specified by the higher headquarters, and the AI is normally identified to be the area

(less constrained by boundaries) that can effect or influence activity within the AO or it is an area deemed critical to future operations. Its limits are based on the ability of the enemy to project power or move forces into the assigned AO. Geographic limits include all threats to the successful accomplishment of the organizations mission. The AO is the area recognized as under direct control, authority and responsibility of the tactical commander in order to conduct combat operations. Defining the the AO and AI establishes physical limits to the battlefield, and serves as the guide to conducting step 2 of the IPB process — Describe the Battlefield Environment.

Describe the Battlefield Environment - Step 2
(formerly Weather & Terrain Analysis)

Once the battlefield has been defined (AO/AI), it is time to examine how the environment within its confines could effect combat operations. Based on a thorough analysis, one is able to identify the types of military activity the environment favors, as well as the types it will not. For example, if the area of operations is predominantly densely vegetated and extremely hilly, it will probably rule out the use of heavy mechanized forces, and limit military operations to light foot mobile forces. Though a simple example, the end result of this step is a detailed examination of all the physical or natural factors of the battlefield that will reduce uncertainty. That is — narrow down or focus on the type of military activity that could be conducted within the AO, and how we could expect to see it employed. This analysis is not only a tremendous aid to reducing uncertainty concerning enemy activity, but will also assist the commander in the effective employment of his own forces or his selected course of action. The results normally consist of graphic products, such as various map overlays that integrate the military factors of weather and terrain analysis.

Terrain analysis results in a graphic description of the effects of the terrain on both enemy and friendly military activity. The most effective analysis can be conducted by physically examining the area of operations, or conduct what is known as terrain reconnaissance. However, the most common means of analysis is through the examination of special terrain data base products developed by the Defense Mapping Agency (DMA). These data base products are available in different scales, however, at the tactical level the 1:50,000 scale is normally used. This will be the scale for all subsequent graphic products of the IPB process. The types of DMA products available include analysis of the vegetation, surface materials, surface drainage, surface configuration, obstacles, transportation networks, cross-country movement (both wet & dry) and concealment (both Summer & Winter). With the use of these products, the analyst collectively identifies what is known as the military aspects of the terrain. They are observation and fields of fire, concealment and cover, obstacles, key terrain, and finally likely avenues of approach and mobility corridors. Collectively this analysis is referred to the acronym OCOKA. Again, in the interest of "time" and its value to later steps in the IPB process, graphic products are used. To effectively analyze the military aspects of the terrain (OCOKA), one should have a general understanding of both enemy and friendly forces/weapons capabilities.

Though they are addressed separately, analysis of the weather must be done in conjunction with terrain analysis. Weather analysis concentrates on the effects of prevailing climatic conditions on both the ground and air dimensions of the environment, and in turn, its military aspects. For example, due to its being the rainy season, certain terrain normally conducive to mechanized movement, will be considered an obstacle. Weather analysis identifies the military aspects of weather within the battlefield area. Specifically, it examines the effects of visibility, winds, precipitation, cloud cover, and temperature and humidity on military

operations. Again, a general understanding of both enemy and friendly force/weapon capabilities is required.

The final description of the battlefield environment is an integrated graphic portrayal of the effects of the weather and terrain on both enemy and friendly courses of action. The products of this step will be integrated with products of the next step (Describe the Enemy) in order to complete the process, and identify the most likely enemy course of action.

Describe the Enemy - Step 3
(formerly Threat Evaluation)

This step consist of the detailed study of the enemy forces. It examines the composition of these forces, their capabilities, their vulnerabilities, the types of tactics they historically employ or train to, or the doctrine of its forces if known. The end result of this step is to identify how the enemy would like to conduct tactical operations without the constraints of the battlefield environment. This step is the compilation and study of all available information concerning the enemy's military forces. There may be a substantial historical and current data base on these forces, or there may be little if any. Obviously, the level of threat knowledge will directly correlate to the level of certainty or the number of "gaps" on the battlefield when determining likely enemy courses of action (step 4). Regardless, it will serve as the guide to focus and prioritize current intelligence collection requirements tailored to the situation.

The products of this step are doctrinal templates a brief description of tactics and options, and the initial identification of enemy high value targets (HVT's). Doctrinal templates at the tactical level are graphic depictions of the enemy combat organizations and how they would be employed, to include spatial and

temporal relationships, without any environmental constraints. To complement the doctrinal templates, a brief description of the enemy's tactics and options is provided. This description talks to the template in describing how any given course of action may unfold. It addresses the sequence of activities for various enemy combat systems, and possible options should certain aspects of the course of action fail to be accomplished. This description can best be visualized in the from of a generic synchronization matrix that can be tailored to the battlefield environment during the last step of the IPB process. The combination of the doctrinal templates and the synchronization matrices allows the analyst to begin to identify high value targets (HVT's). Interdicting HVT's with some element of combat power may significantly degrade the capability of the enemy, and in turn its success for that particular course of action.

Determine Enemy Course of Action - Step 4
(formerly Threat Integration)

During this step, the description of the battlefield environment (step 2) is integrated with the description of the enemy (step 3). The obvious result is the identification of how the enemy will conduct military operations within the constraints imposed by the battlefield environment. The products of this step are the result of a sequence of activities. Specifically, the identification of courses of action, the development of enemy courses of action, analysis of enemy courses of action, and the event templates with associated event synchronization matrices.

During step 3, a thorough examination of enemy capabilities is conducted. The results of this examination serves as the basis for identifying all possible courses of action the enemy could employ within the commander's area of operations. Identifying all possible courses of action is critical regardless of whether it

initially appears to be an unlikely choice. Considering all feasible courses of action may reduce the risk of surprise. Each specific course of action will then be developed into as much detail as the situation will allow. The threat models developed in step 3 will be graphically superimposed on the the graphic products developed in step 2, detailing the military aspects of the weather and terrain analysis or the effects of the battlefield environment. The products of developing each enemy course of action will be a situation template accompanied by a description or statement of the course of action. The situation template is the doctrinal template tailored to the effects of the battlefield environment. The course of action statement is similar to the generic synchronization matrix developed in step 3, however, it is now tailored to actual temporal and spatial relationships imposed by the effects of the environment. In essence, this statement with the situation template, "tells the story" of how each particular course of action will unfold with illustrations. The use of time lines and subsequent or sequential actions via additional templates will further assist the commander to visualize what the enemy might do at a certain place and time on the battlefield.

After each enemy course of action has been developed, they must be analyzed in detail. The analyst will "walk thru" or wargame each course of action through the eyes of the enemy commander. The analyst should identify the strengths, weaknesses, centers of gravity, critical decision points in both the AO and the AI, and anything else deemed critical to the situation that will aid in identifying the most likely course of action.. The result of this analysis is the prioritization of each enemy course of action.

The final two products of the IPB process are the event template and its complementary event matrix. These two products are the primary means of driving the intelligence cycle, the commander's decision support template (DST), and its battlefield operating system (BOS) synchronization matrix. Each set of

situation templates for each enemy course of action forms the basis for the event template. The event template identifies areas on the battlefield that will confirm or deny certain activity or whether a particular course of action has been chosen. These named areas of interest (NAI's) may also be enemy commander's decision points based on the nature of the terrain, or the presence or absence of a certain enemy activity may serve a decision point for the friendly commander. The identification of these NAI's along the battlefield for each enemy course of action translates the commander's Priority Information Requirements (PIR's) into specific indicators. The event matrix provides the timed phased details of the activity of event for each NAI. In addition to its value to intelligence collection management, it will aid or facilitate war-gaming by the rest of the staff in integrating other battlefield operating systems, such as fire support, maneuver, or combat service support.

The commander's decision support template (DST) was previously a specific product of the IPB process, however it is now a separate process developed by the entire staff during the above mentioned staff war-gaming function. The DST is not a unilateral intelligence function, but rather, the product of a coordinated effort on the part of the entire staff to effectively respond to the "enemy events". The DST is accompanied by the BOS synchronization matrix.

The final result of the IPB process is the visualization of the intelligence estimate in the form of a graphic product. It serves as the basis for other staff estimates and the concurrent commander's estimate. From the intelligence perspective, it is a non-stop process. As mentioned earlier, it facilitates the entire intelligence cycle. The PIR refined into NAI's ("gaps" or "uncertainties") are further refined into specific intelligence taskings or requests for information (RFI's). The results of the collection efforts, allows the analyst to

develop the situation and subsequent events on the battlefield, and in turn, a new set of PIR's and specific NAI's ("gaps or uncertainties").1

IV. Tactical IPB versus Operational IPB:

Understanding the differences between the tactical level and operational level of war appears to be quite clear when examining published definitions. However, in practice, the distinction can become somewhat fuzzy. Advances in military technology have compressed the time and space relationships of the modern battlefield activities. This factor is further compounded when engaged in low intensity conflict activities.1 Tactical level organizations may find themselves "preparing, planning, conducting and sustaining operations and a single campaign in order to accomplish an assigned operational or strategic objective. Conversely, operational level organizations may periodically be called upon to "prepare, plan, and conduct battles, engagements or strikes to attain a specific tactical objective. In spite of these anomolies, this paper will address how the IPB process can be applied in order to support operational level activities by operational level organizations.

As stated earlier, the primary difference between the tactical and operational level are the "planning and conducting of battles and engagements to achieve combat objectives" versus the "preparing, planning, conducting and sustaining of operations and a single campaign to achieve operational or strategic objectives". With further examination of these definitions, it is recognized that the *basis of activity* at each level is essentially the same — planning and conducting, and the difference being the *scope of the activity* — battles & engagements to achieve combat objectives versus operations & campaigns to achieve operational or strategic objectives. (Additionally, there is emphasis on "sustainment" at the operational level.)

This scope of activity can be further translated into time and space relationships, size and type forces employed, and the objectives. Generally, operations and campaigns will consume more time and space than engagements and battles. Ironically, the tactical process of IPB has often received its most criticism as being too time consuming for the pace of activity at that level. It would logically follow that this process would be more conducive at the operational level. Another factor that differentiates the two levels of war and therefore effects how the IPB process is applied, is the objective. The accomplishment of the tactical objectives (as a whole) will accomplish the operational objective, and the accomplishment of an operational or a series of operational objectives will achieve the assigned strategic objective. Tactical objectives tend to be oriented purely on the enemy military. Objectives that will contribute to the defeat of the military. Operational or strategic objectives may be expanded to include objectives that may effect the enemy's will to fight. That is — to convince the enemy that the cost of continuing the war is not worth the purpose for fighting it. Or they may be objectives that effect the enemy's ability to logistically continue the fight, lending to success at the tactical level. These differences expand the range and complexity of objectives at the operational level. In addition to military factors, the operational commander may also focus on economic, environmental, political, psychological or sociological factors in order to identify appropriate operational objectives. Throughout the operational continuum (peacetime competition, conflict, war), these factors are considered at the operational level and will effect how IPB is applied.

Understanding the increased scope in terms of time and space relationships and objectives, the operational level intelligence analyst can now integrate the IPB process.

Define the Battlefield Environment - Step 1

As stated earlier, the commander at the tactical level is focused on an area of operations (AO) and an area of interest (AI). He has control, authority and responsibility for the tactical actions conducted within the defined area of operations. The maps and subsequent graphic products at this level are normally at a scale of 1:50,000, and sometimes 1:100,000. The commander at the operational level is focused on the theater of operations and parts of the theater of war versus an AO. The maps and other graphic products at this level are expanded to a scale of 1:250,000 and 1:500,000. As at the tactical level for the AO, the theater of operations is normally specified by the AOR/theater of war commader —CINC. Identifying the area of interest at this level will use the same logic as seen at the tactical level, however identifying this area can become more complex. The analyst will identify an area that can affect or influence operations within the theater of operations. A simple example — during the Persian Gulf War, Jordan would have been identified as an area of interest. However, unlike the tactical level, the AI at the operational level may not necessarily be directly adjacent to the theater of operations, but may include any area, country, organizations, etc. that could directly or indirectly affect activity within the theater of operations. This may be through economic, psychological, political or military support or influence. It may be based on an alliance, coalition, ethnic/religious or ideological association. During operations "Power Pack", "Urgent Fury", "Just Cause", as well as other LIC activities in the Central American region, Cuba and some East European countries were considered critical AI's to the operational commander. The AI for the operational commander will likely be more complex and less definitive than that found at the tactical level, but no less critical. It is an area that will receive further examination in step 3 (decribe the enemy).

Describe the Battlefield Environment - Step 2

Once the theater of operations or (during peacetime) potential theater of operations (i.e. sub-region within the AOR) is identified, the analyst will examine how the environment within the area could effect operations. This analysis is expanded in scope beyond the physical/natural factors found at the tactical level. It may include an examination of the economic/industrial infrastructure and a much larger analysis of the communications infrastructure. It would require a greater appreciation of potential factors within the environment that could effect the enemy's grand strategy as well as the conduct of operations. Factors that could impact on the enemy's ability to sustain operations. Overall, the analyst must examine all factors within the environment that will aid in identifying enemy centers of gravity, and potential operational and tactical objectives when integrated with the products of step 3. Additionally, with a larger area of concern (theater), variations in weather may be critical to how enemy and friendly forces would be employed and supported. As at the tactical level, graphically portraying the results of this step is not only critical to step 4 (determine the enemy course of action), it is a valuable time-saving tool available to the commander throughout the preparing, planning and execution of operations. The military aspects identified during this step, must be focused on employment of larger combat formations (groups of armies/armies/corps) and other elements of power within the "operational stock pile", such as air, naval, and special operations forces. Therefore, incorporating the military aspects for the employment of these types of forces — Joint Operations, the analyst must examine in greater detail the airspace and maritime surface and subsurface dimensions of the theater of operations. Examples of such analysis may include the identification of possible air avenues of approach and maritime chokepoints, as well as potential objectives for these types of forces. Examination of these

additional environmental factors within the theater will not only assist in determining how the enemy may employ such forces, it will also aid the commander in how to best employ friendly air, naval and special operations forces.

Describe the Enemy - Step 3

At the tactical level, this step focuses on the study of the enemy's tactical military forces. It examines the composition, capabilities, vulnerabilities, strengths and weaknesses of tactical forces (divisions/regiments/battalions/companies), and how they would employ these forces without the constraints of the battlefield environment (doctrine). At the operational level, this step will again increase the scope of analysis. The analyst will expand the analysis to include an examination of larger ground combat formations (corps/armies/groups of armies), as well as significant air, naval, special operations forces and major C3I nodes for all major elements of combat power. It will also examine various non-military aspects of the enemy, such as political, cultural, religious, ethnic, psychological and ideological factors in terms of capabilities and vulnerabilities. Analysis of such non-military factors may be interpreted as strategic level analysis, however, an examination of these factors at the operational level is critical identifying the enemy's centers of gravity and possibly the culmination point, as well as identifying the appropriate element of power to be applied. It will expand on the economic/industrial infrastructure analysis conducted in step 2, with a more detailed examination of <u>how</u> the enemy would mobilize its industrial base and establish a support base, if necessary, from outside the theater of operations (i.e. alliances/coalitions, any outside economic & military support). Initial identification of these outside influences is conducted during step 1 in identifying the

commander's area of interest. During this step, the analyst must examine how the enemy would systematically sustain its war-making potential without the environmental constraints into and within the theater of operations. Graphically portraying (doctrinal templates) the results of this analysis becomes more complex, but even more critical when conducting step 4 (determine enemy course of action). The complementary generic synchronization matrices are equally critical in describing the enemy's war-making evolution. As at the tactical level, this step will serve as the start point in identifying the operational centers of gravity, and ultimately, the objectives/targeting effort.

Determine the Enemy Course of Action - Step 4

The integration of step 2 and step 3 at the operational level to determine the enemy course of action will not be a simple task, but the value of its product to the commander will be immense. The products of this step will be a series of templates or a visualization of how the analyst expects the enemy to employ and sustain its means of conducting war (event templates). Again, these templates are complemented by a series of synchronization matrices (event matrices) tailored to the time and space relationships of the battlefield environment, that will aid in visually "telling the enemy story".

The situation templates describing how the enemy may employ major military forces may be as numerative as seen at the tactical level. However, when superimposed with how the enemy would sustain military operations, the available courses of action at the operational level become less flexible and more definitive. The enemy cannot easily move airports, seaports, railroads, automotive/tank/munitions factories. The indicators and the amount of time to mobilize war-making industries is less flexible and easier to

measure. An analysis of each enemy course of action as to how the enemy may employ its forces, may assist in identifying the priority of the sustainment effort in terms of time and space. Equally important, an analysis of how the enemy may sustain its forces may assist in identifying how the enemy would most likely employ its forces, again in terms of time and space. As at the tactical level, the use of time-lines and sequential actions via additional or subsequent situation/event templates will further assist the commander to visualize what the enemy might do at a certain place and time within the theater of operations.

In war-gaming each enemy course of action, the analyst will again identify the enemy's strengths, weaknesses, centers of gravity and critical decision points. With the expanded scope of analysis in time and space, as well as non-military factors in describing the enemy, the enemy's strengths, weaknesses centers of gravity may appear less tangible than those identified at the tactical level. Such as ethnic divisions, religious fervor, or the general population's "will" to mobilize/fight/sustain military operations. These intangibles will be equally difficult to graphically portray as part of an event template. However, if these "intangibles" are major factors of consideration for the integration of the commander's "operational stock pile" (EOS at the tactical level), they need to be highlighted in some way within the event matrices. Some of these factors may need to become targets for other elements of national power (economic, diplomatic or psychological).

After an analysis of each enemy course of action and it has been determined what the most likely course the enemy will follow, the analyst will develop the event templates and their associated matrices. As at the tactical level, these products will serve as the basis for identifying the commander's PIR's/NAI's, and in turn, *drive* the intelligence cycle. They will also serve as the basis for preparing, planning, conducting and

sustaining operations and a campaign if necessary. As with the BOS synchronization matrix at the tactical level, the operational commander will use the IPB event templates/matrices to plan and execute the synchronization of appropriate operational forces at the right place and time within the theater in order to negate the success of the enemy's course of action and achieve the operational/strategic objective. By correctly identifying the PIR's/NAI's within the theater, and the effective prioritization of the collection effort to satisfy these "gaps/uncertainties", the operational commander will be provided the flexibility to successfully adjust to a fluid operational battlefield. That is — "to get inside enemy commander's decision cycle".

V. IPB Across the Operational Continuum:

Up to this point, the paper has addressed how IPB can be applied to the operational level of war. This is merely the result of why and how the process was developed and refined over the years. The process is the product of a strategic environment that was global in nature. It was developed at the tactical level in order to defeat a tactical enemy in a distinct wartime scenario. With a shift to a strategic environment that gives our military forces more of a regional focus, the IPB process will need to be tailored to support operations short of war. Specifically, the myriad of Forward Presence Operations and Crisis Response requirements the military will frequently be called upon to participate. IPB will need to be an integral part of the Adaptive Planning process. Defining the "environment" and the "enemy" will be the critical tasks confronting the analyst in providing IPB support to the operational commander for operations short of war.

Defining the "environment" and the "enemy" for the IPB process to support operations short of war

coincides with the CINC's strategic objectives for the AOR, and any potential threats to the accomplishment of those objectives. For example, if one of the strategic objectives is "to secure and maintain regional stability", and in pursuit of this objective the CINC had to plan and execute a humanitarian relief operation such as an operation currently underway in Somalia. The environment would be defined as the areas not only needing the relief, but also those areas needed to adequately provide the relief (i.e. LOC's or usable airfields) and areas needed to sustain the operation (i.e. adequate air or sea port facilities). Defining the enemy or threat to the operation would require a thorough analysis of the area or country requiring the relief. The analyst must examine the political, economic, psychological, sociological, ideological, religious, ethnic, etc., as well as military factors in order to identify all potential threats to the accomplishment of the operation. Once the "environment" and the "enemy" are identified, the analyst can proceed with steps 2,3, and 4 of the IPB process. Templates with associated matrices can be developed graphically portraying the intelligence estimate, and the intelligence cycle can be focused to support the collection efforts against "uncertainties" or "gaps". IPB can be applied to operations short of war.

VI. Conclusion:

In summary, the differences between the tactical and operational levels of war are generally found in relationship to time and space, the size and type of forces employed, and the nature of the objectives found at each level. The IPB process has been developed, refined, trained, practiced, and employed within the U.S. Army at the tactical level for well over a decade. It is a process that can and should be applied at the operational level by focusing on the differences between to the two levels, adjusting the scope and level of

analysis accordingly. At the tactical level, the process normally deals with hours, minutes and seconds (time); corps, divisions, regiments, battalions and companies (size & type of forces); one to one hundred kilometers (space); ridge lines,bridges, major road junctions, key tactical terrain or the defeat of enemy tactical forces (objectives). The IPB process applied to the operational level will normally deal with: months, weeks, or days (time); one hundred to one thousand kilometers (space); groups of armies, armies, corps, naval, air, special operations forces, and various non-military factors concerning the enemy (size & type forces); major economic and industrial centers, major population centers, the will of the enemy, seaports, airports, or the defeat of the enemy's operational forces (objectives). The scope and level of analysis may be different, the process will remain the same. Finally, the IPB process is not designed to replace the "art" of intelligence analysis. It is simply a methodology used to consume large quantities of information and focus the intelligence effort for processing and collection activities, in order to allow the operational commander to make the "best use" of intelligence — timely. It does not replace the need for human intuition — analysts or commanders. However, as the military pursues the development and training of Joint doctrine and operations, it should incorporate, train, practice and refine an IPB process at the operational level of war.

END NOTES

Chapter I

1. Sun Tzu, The Art of War, translated by Samuel B. Griffith (Oxford University Press, 1971), p. 129

2. Jomini, Antoine Henri, The Art of War, taken from Michael Handel, Masters of War, (London: Frank Cass and Company, 1992), p. 127

3. U.S. Army, FM 34-3, Intelligence Analysis, (Washington D.C. : Department of the Army, January 1986), p. 1-1

4. MacLachlan, Donald. Intelligence: The Common Denominator, in Michael Eliot-Bateman (ed.), The Fourth Dimension: Vol 1 Intelligence, Subversion, Resistance, (NY, 1970), pp. 53-4, taken from Handel, Michael, Intelligence and Military Operations, (London: Frank Cass and Company, 1990) p. 1

5. Martin Van Crevald, Command in War, (Cambridge: Harvard University Press, 1988), p. 264

6. Sun Tzu, op cit, p. 128

Chapter II.

1. Joint Chiefs of Staff. JCS Publication 1-02: DOD Dictionary of Military and Associated Terms, June 1987

Chapter III.

1. The description of the IPB process is provided in numerous Army Field Manuals and Training Circulars. The principle documents used were FM 34-130, Intelligence Preparation of the Battlefield (draft), (U.S. Army Intelligence Center and School, Ft Huachuca, AZ, October 1992), and FM 34-3, Intelligence Analysis, (Department of the Army, Washington D.C., January 1986)

Chapter IV.

1. Professor Milan Vego, OPS-4 Handout # 1, 18 Nov 92, p. 7

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